

REMARKS

Claims 1 through 26 are pending in this application. Claims 8, 16 and 21 are amended in several particulars for purposes of clarity in accordance with current Office policy, to assist the examiner and to expedite compact prosecution of this application. The Applicant appreciates the Examiner's indication of allowability concerning claims 3, 4, 7, 10, 14, 19 and 23.

I. Specification

1. The Examiner stated that the disclosure is objected to because of on Page 8, lines 8, Figs. 6 and 7 are grouped in the brief description of the drawings, such grouping of figures is not appropriate since each figure needs to have a separate brief description. See MPEP 608.01(f).

The specification was amended according to Examiner's suggestion, although MPEP 608.01(f) does not specifically object to figures being grouped.

2. The Examiner stated that the disclosure is objected to because of on Page 13, line 11, a reference to "dummy bridges 83' " is made. However, in Fig. 9, such numeral represents real bridges on the dummy bridge region.

Looking at figure 9 and the corresponding specification, it is seen that in the first sentence of paragraph 55, dummy bridges refers to reference 83' and in the first sentence of paragraph 54, real bridges are referred to as 83. As seen in the drawing of figure 9, a real bridge is seen as 83 and

dummy bridges in the dummy bridge region 88 are seen as reference 83'. However, figure 9 is not showing 83' being a real bridge.

II. Claim Objections

The Examiner stated that Claim 18 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 17. The Examiner stated that when two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

However, looking at claim 17 the damping wire contacts each of the strips and in claim 18 the damping wire contacts at least one of said strips. Clearly, there is a different scope of coverage for the two claims. "At least one" and "each" are not duplicates nor so close in content that they cover the same thing.

III. Claim Rejections - 35 USC § 112

The Examiner rejected Claims 8-11, 16-20, and 21-26 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. The Examiner stated that Claims 8, 16 and 21 recite the limitation "the extending strip" and "the facing strip" in lines 3-4, lines 6-7, and lines 6-7, respectively. The Examiner stated there is insufficient antecedent basis for this limitation in the claim.

The claims were amended to correct the antecedent basis.

2. The Examiner stated that Claim 16 recites the limitation "the dummy bridge *regions*" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 was amended accordingly where "regions" was corrected to "region."

3. Therefore, because of the corrections to claims 1, 16 and 21 above, claims 9-11, 17-20, and 22-26 should no longer be rejected under 35USC§112(second paragraph) because of their dependency of claims 8, 16 and 21.

IV. REJECTION OF CLAIMS (35 U.S.C. § 103)

Claims 1, 2, 5, 6, 8, 9, 11-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable. The Applicant respectfully traverses.

According to MPEP 706.02(j), the following establishes a *prima facie* case of obviousness under 35 U.S.C. §103:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or

to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

A. The Examiner rejects Claims 1, 2 and 15 under 35 U.S.C. 103(a) as being unpatentable over Kawamura et al. (US 5,523,647) in view of Inoue et al, (US 2001/0020817). The Applicant respectfully traverses.

1. The Applicant would like to bring to the attention of the Examiner that Inoue et al (US 2001/0020817) can be antedated by the present application by filing a certified English translation of the Korean priority document dated July 12, 2000 which predates the U.S. filing date of Inoue et al. March 7, 2001.

2. Regarding claim 1, Kawamura discloses a tension mask frame assembly of a color CRT, comprising:

The Examiner states that Kawamura teaches at least one damper (see Fig. 2) installed on the frame and contacting the strips of the tension mask. The Examiner states that Kawamura is silent regarding the limitation of "the number of real bridges decreasing in a direction from the center portion of said mask to the peripheral portion of said tension mask" but that, in the same field of endeavor, Inoue discloses a shadow mask where the number of real bridges decreases from the center portion of said mask to the peripheral portion (see Figs. 1, 6, 7 and 9) in order to avoid deformation due to external shock during a manufacturing process, during transportation or due to heating during operation, thus diminishing a lowering of color reproducibility and a lowering of picture quality (see paragraphs [0015], [0021] and [0022]). Therefore, the Examiner states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Inoue's teachings of reducing the number of real bridges from a central portion of the mask to a peripheral portion to avoid deformation due to external shock during a manufacturing process, during transportation or due to heating during operation, thus diminishing a lowering of color reproducibility and a lowering of picture quality.

The Federal Circuit has mentioned that "[t]he test for obviousness is not whether the features of one reference may be bodily incorporated into another reference...Rather, we look to see whether combined teachings render the claimed subject matter obvious." *In re Wood*, 599 F.2d 1032, 202 USPQ 171, 174 (CCPA 1979) (citing *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549-50 (CCPA 1969); *In re Mapelsden*, 329 F.2d 321, 322, 141 USPQ 30, 32 (CCPA 1964). The Examiner has mentioned that Kawamura teaches a damper and separately Ohmae teaches of the decreasing real

bridges. However, there is no *teaching* of a damper being used for a tension mask that decreases the real bridges and has the damper.

The first point in MPEP 706.02(j) states that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. “Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability. *In re Dembiczak*, 175 F.3d 994, 50 USPQ.2d 1614 (Fed. Cir. 1999). The showing must be “clear and particular” without broad generalized conclusory statements. *Id.* There must be specific statements showing the scope of the suggestion, teaching, or motivation to combine the prior art references. *Id.* at 1000. There must be an explanation to what specific understanding or technical principle would have suggested the combination of references. *Id.*

The Examiner states that one would be motivated in combining the two because of the two references being in the same endeavor and to have a peripheral portion avoid deformation due to external shock during a manufacturing process, during transportation or due to heating during operation, thus diminishing a lowering of color reproducibility and a lowering of picture quality.

However, as seen in *Kawamura et al.*, decreasing of the number of real bridges is being taught away. According to MPEP §2145, “It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983). This portion of *Kawamura et al.* cannot be just ignored because according to MPEP §2141.02, “A prior art reference must be considered in its entirety, i.e., as a whole, including

portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).” A reference may be said to teach away when a person of ordinary skill, upon reading a reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that the applicant took. *In re Gurley*, 27 F.3d 551, 31 USPQ 2d 1130, 1131 (Fed. Cir. 1994).

In col. 5, lines 28-30 of Kawamura et al., it states that in figures 2 through 4, the bridges 8f are at intervals of about 1mm and their vertical width is about 0.08. Therefore, the intervals of the bridges are fairly constant and the number of bridges does not decrease. As seen in figure 2, the number of real bridges is constant for every other strip and every adjacent set varies from each other. Therefore, clearly Kawamura is teaching away from using the teachings of Inoue et al.

3. The arguments for claim 1 would also be true for the rejection of claim 15.

4. Regarding claim 2, the Examiner stated that Kawamura discloses at least one damping wire having both ends secure to the frame, contacting each of said strips (see Fig. 2). The Examiner further states that the drawing shows the damping wire going across, but the specification is silent as to whether “each one of the strips” are contacted. The drawing is still arguable as to its teaching of contacting each and every strip.

B. The Examiner rejects Claims 5, 6, 8, 9 and 11-13 under 35 U.S.C. 103(a) as being unpatentable over Kawamura-Inoue as applied to claim 1 above, and further in view of Ohmae (US 6,388,370). The Applicant respectfully traverses.

1. As mentioned above in point "IV.A", the Applicant would like to bring to the attention of the Examiner that Inoue et al (US 2001/0020817) can be antedated by the present application by filing a certified English translation of the Korean priority document dated July 12, 2000 which predates the U.S. filing date of Inoue et al. March 7, 2001.

2. Regarding claim 5, the Examiner stated that Kawamura-Inoue discloses the claimed invention except for the limitation of "a plurality of dummy bridges between two real bridges". However, the Examiner stated that in the same field of endeavor, Ohmae discloses a shadow mask with dummy bridges between two real bridges with the purpose of reducing the doming effect and suppressing the occurrence of moiré stripes, improving the image quality (see Col. 2, lines 30-34). Therefore the Examiner concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide dummy bridges between two real bridges in order to reduce the doming effect and suppressing the occurrence of moiré stripes, improving the image quality.

However, Kawamura is teaching away from the present invention as seen clearly in the slots of Kawamura in figures 3a and 3b. The slots and strips clearly are devoid of dummy bridges. In fact the specification emphasis the depiction of figures 3a and 3b as shown in col. 5 of Kawamura. Real

bridges 8f are clearly pointed out and the slots 11 which are clearly devoid of a dummy bridge formation. Col. 6 continues to talk of the real bridges 8f, but clearly teaching away from dummy bridge formation. Therefore, Kawamura should not be combined with the other references like Ohmae and Inoue.

3. Referring to claims 6, 9, 13, 17 and 22, the Examiner stated that in claim 6, Kawamura discloses at least one damping wire having both ends secure to the frame, contacting each of said strips (see Fig. 2) and in claim 9, the Examiner stated that Kawamura discloses at least one damping wire having both ends secure to the frame, contacting each of said strips (see Fig. 2).. As mentioned above, the drawing shows the damping wire going across, but the specification is silent as to whether “each one of the strips” are contacted. The drawing is still arguable as to its teaching of contacting each and every strip.

4. Referring to claim 8, the Examiner stated that Kawamura-Inoue-Ohmae discloses a tension mask with a dummy bridge region including a plurality of dummy bridges extending from adjacent strips, not contacting said adjacent strips. As mentioned above Kawamura should not be combined with the other references because Kawamura teaches away.

5. Regarding claim 12, the Examiner stated that Kawamura-Inoue-Ohmae discloses the mask comprising a peripheral region including a slot defined by strips.

However, claim 12 also mentions an “aperture grill region including a single slot defined by

strips” where the aperture grille region is disposed at the periphery of the tension mask. The claims specifically states the strips at the periphery portion define a “single” slot, and not a plurality of slots. Clearly the combination of references makes no such teaching or suggestion.

6. Referring to claim 16, the references of Kawamura-Inoue-Ohmae do not show all of the limitations as shown above including the arguments for claims 1 and 5. Furthermore, there is no teaching or suggestion in the combination of references that the dummy bridges are located on the peripheral portion the tension mask. Further, the dummy bridges in Ohmae are shown to be throughout the entire tension mask which is teaching away from being at the present invention. The present invention in claim 16, however, has a real bridge region at the center of the tension mask and a dummy bridge region on the peripheral portion of the tension mask.

7. Referring to claim 20, the Examiner stated that Kawamura-Inoue-Ohmae discloses the strips having the dummy bridge region comprising real bridges, the number of real bridges decreases from the center portion of said mask to the peripheral portion. The arguments for claim 1 are also relevant to claim 20.

8. Regarding claim 21-26, the Examiner stated that Kawamura-Inoue-Ohmae discloses a grille region having a slot defined by strips (see '647, Col. 2, lines 66-67), said region located at the outer side of the dummy bridge region.

However, looking at Kawamura in col. 2, lines 66-67, the grills are referring to the strips of

Kawamura and not an aperture grill with a “single slot”. In fact the “grills” of Kawamura has a plurality of slots for each set of adjacent “grills” or strips.

Further, the aperture grill is not taught or suggested to be on the outside of the dummy bridge region.

V. ALLOWABLE SUBJECT MATTER

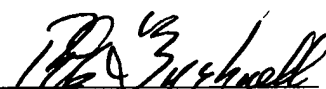
The examiner stated that claims 3, 4, 7, 10, 14, 19 and 23 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The applicant appreciates the examiner’s indication of allowability pertaining to claims 3, 4, 7, 10, 14, 19 and 23. In accordance with 37 C.F.R. § 1.111(b), the applicant respectfully requests that the examiner temporarily hold objections and requirements as to form in abeyance until the remarks and amendments in this Amendment are considered by the examiner.

In view of the foregoing amendments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. If there are any questions, the examiner is asked to contact the applicant’s attorney.

No fee is incurred by this Amendment. Should there be a deficiency in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,


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